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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/216,378	12/18/1998	RIX S. CHAN	450.250US1	9856

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EXAMINER

LAO, LUN S

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/216,378	CHAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Lun-See Lao	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-27 and 29-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **ETAILED ACTION**

### *Introduction*

1. This action responds to amendment filed on 10-31-2005. Claims 6 and 28 have been cancelled and claims 16-18 and 38 have been amended. Claims 1-5, 7-27 and 29-38 are pending.

### ***Continued Prosecution Application***

2. The request filed on 10-31-2005 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/216,378 is acceptable and a CPA has been established. An action on the CPA follows.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 7-27 and 29-38, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lambrecht (US PAT. 6,259,792) in view of McIntosh (US PAT. 6,278,786).

Consider claim 1, Lambrecht teaches that a personal computer comprising (see fig.1 col.2 lines 9-35):

a microphone (see fig.2, 108) for detecting ambient noise; a noise cancellation module coupled to the microphone that generates a noise cancellation signal responsive to the detected ambient noise (see fig.1 col.2 lines 9-45); and the noise cancellation signal provided from a desired source for provision to a standard headphone (see fig. 1 and col. 2 lines 55-64); but Lambrecht fails to teach that a digital signal processor for mixing the noise cancellation signal with an audio signal provided from a desired source for provision to a standard headphone compatible audio output connection to reduce headphone noise and does not clearly teach a built-in microphone for detecting ambient noise and Lambrecht indicates that the computer with a speaker and microphone for the noise cancellation; and it is well known (official notices is taken) in the art that a built-in microphone for detecting ambient noise in the computer.

Therefore, it would obvious to one of ordinary skill in the art at the time invention was made that Lambrecht would have a built-in microphone for detecting ambient noise in the computer for perform well in noisy environments and friendly uses.

However, McIntosh teach a digital signal processor (see fig.4, (DSP)) for mixing the noise cancellation signal with an audio signal (AUDIO L, R) provided from a desired source for provision to a standard headphone (12) compatible audio output connection to reduce headphone noise (see col.3 line 24-col.4 line 55).

Therefore, it would obvious to one of ordinary skill in the art at the time invention was made to combine the teaching of McIntosh into Lambrecht to provide not only active control of the analog cancellation loop gain to maximize the effectiveness of the broadband analog cancellation but also uses the adaptive feedback filter/algorithm to

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substantially reduce at least the loudest tonal noises penetrating the earcup (such tonal noises being engine and propeller noises, and harmonic vibrations of fuselage components).

Consider claims 2-3, Lambrecht discloses that the personal computer of further comprising an optical disc drive for providing the audio signal (see col.2 lines 9-35 and col.3 lines 35-42) and the noise reduction scheme of the noise cancellation module comprises a software program running on a processor (see col.5 line 40-col.6 line 25).

Consider claim 4, Lambrecht discloses that the personal computer wherein the microprocessor is the central processing unit for the computer system (see col.3 lines 10-22).

Consider claim 5, McIntosh discloses that the noise reduction scheme includes the digital signal processor (see fig. 4, dsp) is located on a sound board (see col.3 line 24-col.4 line 55).

Consider claim 7, Lambrecht discloses that the personal computer of the audio output connection is compatible with a standard set of headphones (see fig.2 #108 and col.3 lines 3-12) and the computer system is a mobile computer (see fig.1).

Consider claim 8, Lambrecht discloses that a method of reducing ambient noise normally heard by a user through headphones when listening to audio provided via a mobile computer system, comprising (see fig.1 and col.2 lines 7-35): detecting the ambient noise via a microphone (see fig.2, 108) (see col.3 lines 50-63); generating a noise cancellation signal based on the detected ambient noise; but Lambrecht fails to teach a mixing the noise cancellation signal with the audio from the compact disc,

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wherein the mixed signal is applied to a standard headphone compatible audio output connection to reduce the ambient noise in the headphones and does not clearly teach detecting the ambient noise via a microphone built-in to the mobile computer system and Lambrecht indicates that the computer with a speaker and microphone for the noise cancellation; and it is well known (official notices is taken) in the art that a built-in microphone for detecting ambient noise in the mobile computer.

Therefore, it would obvious to one of ordinary skill in the art at the time invention was made that Lambrecht would have a built-in microphone for detecting ambient noise in the mobile computer for perform well in noisy environments and friendly uses.

However, McIntosh teaches a mixing the noise cancellation signal with the audio from the compact disc (see fig.8, (CD) and col. 5 line 29-col. 6 line 44), wherein the mixed signal is applied to a standard headphone compatible audio output connection to reduce the ambient noise in the headphones (see fig.4 (10) and col.3 line 24-col.4 line 55).

Therefore, it would obvious to one of ordinary skill in the art at the time invention was made to combine the teaching of McIntosh into Lambrecht to provide not only active control of the analog cancellation loop gain to maximize the effectiveness of the broadband analog cancellation but also uses the adaptive feedback filter/algorithm to substantially reduce at least the loudest tonal noises penetrating the earcup (such tonal noises being engine and propeller noises, and harmonic vibrations of fuselage components).

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Consider claim 9-12, Lambrecht teaches that the method of reducing ambient noise further comprising converting the detected ambient noise to an electrical signal (see col.3 line 45-col.4 line 25); detecting the ambient noise is performed using a built-in microphone within the mobile computer system (see fig.1 # 154 and col.3 lines 2-30) and the generation of the noise cancellation signal is done when the optical disc drive is active (see col.2 lines 9-35 and col.5 line 20-col.6 line 47); generation of the noise cancellation signal is initiated manually via a software interface (see col.2 lines 9-35 and col.5 line 40-col. line 50).

Consider claim 13, Lambrecht discloses that a machine readable medium having machine readable instructions stored thereon for causing a computer to perform the steps comprising (see col.3 lines 10-55); detecting environmental background noise via a microphone (see fig.2, 108); converting the detected environmental background noise into an electrical signal (see col.3 lines 25-61); generating a noise cancellation signal based on the electrical signal (see col.2 lines 9-35 and col.3 line 45-col.5 line 40); but Lambrecht fails to teach a mixing the noise cancellation signal with an audio signal for provision to a standard headphone compatible audio output connection to reduce headphone noise and does not clearly teach detecting environmental background noise via a microphone built-in to the computer and Lambrecht indicates that the computer with a speaker and microphone for the noise cancellation; and it is well known (official notices is taken) in the art that a built-in microphone for detecting ambient noise in the mobile computer.

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Therefore, it would be obvious to one of ordinary skill in the art at the time invention was made that Lambrecht would have a built-in microphone for detecting ambient noise in the mobile computer for perform well in noisy environments and friendly uses.

However, McIntosh teaches a mixing (see fig.4, (DSP)) the noise cancellation signal with an audio signal (audio, (L and R)) for provision to a standard headphone (12) compatible audio output connection to reduce headphone noise (see col.3 line 23-col.4 line 55).

Therefore, it would be obvious to one of ordinary skill in the art at the time invention was made to combine the teaching of McIntosh into Lambrecht to provide not only active control of the analog cancellation loop gain to maximize the effectiveness of the broadband analog cancellation but also uses the adaptive feedback filter/algorithm to substantially reduce at least the loudest tonal noises penetrating the earcup (such tonal noises being engine and propeller noises, and harmonic vibrations of fuselage components).

Consider claims 14-15, Lambrecht teaches that the machine readable medium of generating a noise cancellation signal is performed automatically when the optical disc drive is active (see col.3 line 20-col.4 line 56) and; of generating a noise cancellation signal is activated through a software interface (such as, Microsoft operation software and see col.4 lines 5-55 and col. 5 line 60-67).

Regarding claim 16, Lambrecht teaches that a personal computer comprising (see fig.1 #154):

A housing (see fig.1, 154)



a microprocessor (see fig.2, 108) inherently mounted on the housing ( because, the computer includes it); memory coupled to the microprocessor (see fig.2);

a storage device coupled to the microprocessor; a microphone for detecting ambient noise (see col.3 lines 3-61);

a noise cancellation module (see fig.2, 102) coupled to the microphone (108) that generates a noise cancellation signal responsive to the detected ambient noise (see col.3 lines 45-61); but Lambrecht fails to disclose a digital signal processor for mixing the noise cancellation signal with an audio signal provided from a desired source for provision to a standard headset compatible audio output connection to reduce headphone noise and does not clearly teach a microphone built into the housing for detecting noise ambient to the housing and Lambrecht indicates that the computer with a speaker and microphone for the noise cancellation; and it is well known (official notices is taken) in the art that a microphone built into the housing for detecting ambient noise, in the mobile computer.

Therefore, it would obvious to one of ordinary skill in the art at the time invention was made that Lambrecht would have a microphone built into the house for detecting ambient noise in the mobile computer for perform well in noisy environments and friendly uses.

However, McIntosh discloses a digital signal processor (see fig.4, (DSP)) for mixing the noise cancellation signal with an audio signal (such as (AUDIO, L AND R)) provided from a desired source for provision to a standard headset compatible audio output connection to reduce headphone noise (see col.3 line 23-col.4 line 55).

Therefore, it would be obvious to one of ordinary skill in the art at the time invention was made to combine the teaching of McIntosh into Lambrecht to provide not only active control of the analog cancellation loop gain to maximize the effectiveness of the broadband analog cancellation but also uses the adaptive feedback filter/algorithm to substantially reduce at least the loudest tonal noises penetrating the earcup (such tonal noises being engine and propeller noises, and harmonic vibrations of fuselage components).

Consider claims 17-18, Lambrecht teaches that the personal computer of further comprising an integrated display device and computer comprises a mobile computer system having an integrated source of power (see fig.1 #154).

Consider claims 19-20, Lambrecht teaches that the personal computer of the noise cancellation module is part of the microprocessor (see col.6 lines 5-25) and the personal computer comprises a mobile computer system and the noise cancellation module is provided by the microprocessor (see col.6 lines 5-50).

Consider claims 21,23, McIntosh discloses that the audio source comprises a compact disc playing game or music sounds; and the audio from the compact disk comprises music (see fig.8 and see col. 5 line 29-col. 6 line 25).

Consider claim 22, McIntosh teaches that the noise cancellation signal is mixed with the audio signal (see fig.4 (AUDIO, L and R)) to cancel ambient noise such that the audio signal is audible through a speaker (see fig.4 (12)) couple to the audio output connection (see col.3 line 23-col.4 line 55).

Consider claim 24 Lambrecht teaches a mobile computer comprising:

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a microphone (see fig.2,108) integrated into the mobile computer for detecting ambient noise (see col.2 lines 9-45);

a noise cancellation software (see col.5 line 50-col.6 line 50) module coupled to the microphone (108) that generates a noise cancellation signal responsive to the detected ambient noise, and inherently having a profile (because microsoft's direct sound and see col. 3 lines 22-28) for compensating for keyboard key clicks (such as one kind of environment noise) detected by the microphone, but Lambrecht fails to teach that a digital signal processor for mixing the noise cancellation signal with an audio signal provided from a desired source for provision to an audio output connection for a standard headset.

However, McIntosh teaches that a digital signal processor (se fig.4 (DSP)) for mixing the noise cancellation signal with an audio signal (such as, (AUDIO, l and r)) provided from a desired source for provision to an audio output connection for a standard headset (12 and see col.3 line 23-col.4 line 55).

Therefore, it would obvious to one of ordinary skill in the art at the time invention was made to combine the teaching of McIntosh into Lambrecht to provide not only active control of the analog cancellation loop gain to maximize the effectiveness of the broadband analog cancellation but also uses the adaptive feedback filter/algorithm to substantially reduce at least the loudest tonal noises penetrating the earcup (such tonal noises being engine and propeller noises, and harmonic vibrations of fuselage components).

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Consider claims 25-28, Lambrecht teaches that the mobile computer of the audio output connection comprises an analog output port ( col.5 lines 10-25); and a digital to analog converter coupled between the digital signal processor and analog output port( see fig.2); and the noise cancellation signal is generated when a source of audio output is activated (see col.1 line 20-col.2 line5); and microphone is a built-in microphone of said personal computer (see col.3 lines 3-15).

Consider claims 29-30 Lambrecht teaches that the personal computer of noise cancellation module generates the noise cancellation signal based on said ambient noise, said noise cancellation signal being generated in a format suitable to reduce headphone noise in the standard set (see col1 line 20-col.2 line 35); but, Lambrecht does not clearly teach headphones connected via the audio output connection.

However, McIntosh teach the noise cancellation signal with an audio signal provided to a standard headphone (see fig.4, 12) compatible audio output connection to reduce headphone noise (12 and see col.3 line 23-col.4 line 55).

Therefore, it would obvious to one of ordinary skill in the art at the time invention was made to combine the teaching of McIntosh into Lambrecht to provide not only active control of the analog cancellation loop gain to maximize the effectiveness of the broadband analog cancellation but also uses the adaptive feedback filter/algorithm to substantially reduce at least the loudest tonal noises penetrating the earcup (such tonal noises being engine and propeller noises, and harmonic vibrations of fuselage components).

Consider claims 31 and 33, Lambrecht teaches that the noise cancellation signal is generated based on the detected ambient noise in a format suitable to reduce headphone noise in the standard set of headphones (see figs 1-2 and col.2 line 55-col.3 line 61); but Lambrecht does not clearly teach that the headphones connected via the audio output connection.

However, McIntosh teaches that the noise cancellation signal is generated based on the detected ambient noise in a format suitable to reduce headphone (see fig.4, 12) noise in the standard set of headphones connected via the audio output connection (12 and see col.3 line 23-col.4 line 55).

Therefore, it would obvious to one of ordinary skill in the art at the time invention was made to combine the teaching of McIntosh into Lambrecht to provide not only active control of the analog cancellation loop gain to maximize the effectiveness of the broadband analog cancellation but also uses the adaptive feedback filter/algorithm to substantially reduce at least the loudest tonal noises penetrating the earcup (such tonal noises being engine and propeller noises, and harmonic vibrations of fuselage components).

Consider claims 35 and 37, Lambrecht teaches that the personal computer of the noise cancellation module generates the noise cancellation signal based on said ambient noise (see figs 1-2 and see col. 2 line 55-col. 3 line 53), but Lambrecht does not clearly teach the noise cancellation signal being generated in a format suitable to reduce headphone noise in the standard set of the headphones connected via the audio output connection.

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However, McIntosh teaches that the noise cancellation module generates the noise cancellation signal based on said ambient noise, said noise cancellation signal being generated in a format suitable to reduce headphone (see fig.4, 12) noise in the standard set of headphones connected via the audio output (audio land r) connection (12 and see col.3 line 23-col.4 line 55).

Therefore, it would obvious to one of ordinary skill in the art at the time invention was made to combine the teaching of McIntosh into Lambrecht to provide not only active control of the analog cancellation loop gain to maximize the effectiveness of the broadband analog cancellation but also uses the adaptive feedback filter/algorithm to substantially reduce at least the loudest tonal noises penetrating the earcup (such tonal noises being engine and propeller noises, and harmonic vibrations of fuselage components).

Consider claims 32, 34, 36 and 38 McIntosh teaches that the headphone noise comes from a some source as said ambient noise (see fig.4. and see col.3 line 23-col.4 line 55).

5. Claims 16-20, 24-27 and 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eatwell (US PAT. 5,828,768) in view of McIntosh (US PAT. 6,278,786).

Consider claim 16, Eatwell teaches that a personal computer comprising:

a housing (see fig. 9)

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a microprocessor inherently (because, the computer includes it) mounted on the housing.

memory (see fig. 15, (109) coupled to the microprocessor (main processor),

a storage device (110) coupled to the microprocessor;

a microphone (see fig.9, (68)) built into the housing for inherently detecting noise ambient to the housing (see col. 5 lines 55-61);

a noise cancellation module (see fig.16) coupled to the microphone (112) that generates a noise cancellation signal responsive to the detected ambient noise (see col. 7 lines 7-18); but Eatwell fails to disclose a digital signal processor for mixing the noise cancellation signal with an audio signal provided from a desired source for provision to a standard headset compatible audio output connection to reduce headphone noise.

However, McIntosh discloses a digital signal processor (see fig.4, (DSP)) for mixing the noise cancellation signal with an audio signal (such as (AUDIO, L AND R)) provided from a desired source for provision to a standard headset compatible audio output connection to reduce headphone noise (see col.3 line 23-col.4 line 55).

Therefore, it would obvious to one of ordinary skill in the art at the time invention was made to combine the teaching of McIntosh into Lambrecht to provide not only active control of the analog cancellation loop gain to maximize the effectiveness of the broadband analog cancellation but also uses the adaptive feedback filter/algorithm to substantially reduce at least the loudest tonal noises penetrating the earcup (such tonal noises being engine and propeller noises, and harmonic vibrations of fuselage components).

Consider claims 17-18, Eatwell teaches that a display device integrated into the display device (see fig.9 and see col. 5 line 55-61) and personal computer comprises a mobile computer system having a source of power integrated into the housing (see figs 9 and 15 and col. 6 line 54-col. 7 line 9).

Consider claims 19-20, Eatwell teaches that the personal computer of the noise cancellation module is part of the microprocessor (see fig. 16, (DSP) and see col.7 lines 10-18) and the personal computer comprises a mobile computer system and the noise cancellation module is provided by the microprocessor (see fig. 16, (DSP) and see col.7 lines 10-18).

Consider claim 35, Eatwell teaches that the personal computer of the noise cancellation module generates the noise cancellation signal based on said ambient noise (see figs 9 and 16 and see col. 7 lines 10-18), but Eatwell does not clearly teach the noise cancellation signal being generated in a format suitable to reduce headphone noise in the standard set of the headphones connected via the audio output connection.

However, McIntosh teaches that the noise cancellation module generates the noise cancellation signal based on said ambient noise, said noise cancellation signal being generated in a format suitable to reduce headphone (see fig.4, 12) noise in the standard set of headphones connected via the audio output (audio land r) connection (12 and see col.3 line 23-col.4 line 55).

Therefore, it would obvious to one of ordinary skill in the art at the time invention was made to combine the teaching of McIntosh into Eatwell to provide not only active control of the analog cancellation loop gain to maximize the effectiveness of the



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broadband analog cancellation but also uses the adaptive feedback filter/algorithm to substantially reduce at least the loudest tonal noises penetrating the earcup (such tonal noises being engine and propeller noises, and harmonic vibrations of fuselage components).

Consider claim 24 Eatwell teaches a mobile computer comprising:

a microphone (see fig.5, (53-54)) integrated into the mobile computer for detecting ambient noise (see col.5 lines 20-40 and col. 6 line 54-col.7 line 9).

a noise cancellation software (voice recognition software resides) module coupled to the microphone (see fig.15, 102) that generates a noise cancellation signal responsive to the detected ambient noise, and inherently (because, the voice recognition software resides) having a profile for compensating for keyboard key clicks (such as, hard disk and floppy disk are based on background noise) detected by the microphone (see fig. 5 (53-54) and col.5 line 20-40), but Eatwell fails to teach that a digital signal processor for mixing the noise cancellation signal with an audio signal provided from a desired source for provision to an audio output connection for a standard headset.

However, McIntosh teaches that a digital signal processor (see fig.4, (DSP)) for mixing the noise cancellation signal with an audio signal (AUDIO, L and R)) provided from a desired source for provision to an audio output connection for a standard headset (12 and see col.3 line 23-col.4 line 55).

Therefore, it would obvious to one of ordinary skill in the art at the time invention was made to combine the teaching of McIntosh into Eatwell to provide not only active control of the analog cancellation loop gain to maximize the effectiveness of the

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broadband analog cancellation but also uses the adaptive feedback filter/algorithm to substantially reduce at least the loudest tonal noises penetrating the earcup (such tonal noises being engine and propeller noises, and harmonic vibrations of fuselage components).

Consider claims 25-27, Eatwell teaches that the mobile computer of the audio output connection comprises an analog output port (in the sound card and see col.6 lines 25-67); and a digital to analog converter coupled between the digital signal processor and analog output port (in the sound card and see col.6 lines 25-67); and the noise cancellation signal is generated when a source of audio output is activated (see col.6 line 53-col.7 line45).

Consider claim 37, Eatwell teaches that the personal computer of claim 16 wherein said noise cancellation module generates the noise cancellation signal based on said ambient noise, said noise cancellation signal being generated in a format suitable to reduce noise in the computer (see figs. 13, 15 and col.6 line 25-col. 7 line18); but Eatwell does not clearly teach to reduce headphone noise in the standard set of headphones connected via the audio output connection.

However, McIntosh teaches that the noise cancellation module generates the noise cancellation signal based on said ambient noise, said noise cancellation signal being generated in a format suitable to reduce headphone noise in the standard set of headphones (see fig.4, (12)) connected via the audio output connection (audio, I and r and see col.3 line 23-col.4 line 55).

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Therefore, it would be obvious to one of ordinary skill in the art at the time invention was made to combine the teaching of McIntosh into Lambrecht to provide not only active control of the analog cancellation loop gain to maximize the effectiveness of the broadband analog cancellation but also uses the adaptive feedback filter/algorithm to substantially reduce at least the loudest tonal noises penetrating the earcup (such tonal noises being engine and propeller noises, and harmonic vibrations of fuselage components).

Consider claims 36 and 38, McIntosh teaches that the headphone noise comes from a some source as said ambient noise (see fig.4. and see col.3 line 23-col.4 line 55).

### ***Response to Arguments***

6. Applicant's arguments with respect to claim 1-38 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any response to this action should be mailed to:

Mail Stop \_\_\_\_ (explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

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**(571) 273-8300**

Hand-delivered responses should be brought to:  
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Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao,Lun-See whose telephone number is (571) 272-7501. The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

Lao,Lun-See  
Patent Examiner  
US Patent and Trademark Office  
Crystal Park 2  
571-272-7501  
Date 01-09-2006



**HUYEN LE**  
**PRIMARY EXAMINER**